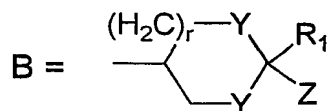
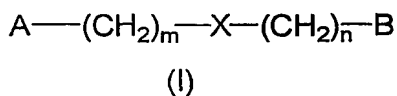


We claim:

A compound of formula (I):



- 5 their tautomeric forms, their pharmaceutically acceptable salts, their pharmaceutically acceptable solvates, pharmaceutical compositions containing them, wherein 'A' represents optionally substituted, single or fused aryl, cycloalkyl group or an optionally substituted heteroaryl or an optionally substituted heterocyclyl group; 'm' = 0-2; 'n' = 3-6; 'X' represents O, S, -N-(Ra)- or -CH₂-; Ra represents H, linear or branched, group
10 selected from alkyl, acyl or aryl, aralkyl group, which may optionally be substituted; 'Y' at each occurrence independently represent O or S; R₁ represents H, linear or branched substituted or unsubstituted alkyl; r = 0-2; Z represents -(CH₂)_sCOOH, alkoxy carbonyl, hydroxymethyl, -CN, substituted or unsubstituted tetrazoles, alkyl carbonyl groups, s = 0-4; with the proviso that when 'X' = CH₂ and
- 15 i) 'A' represents substituted heterocyclic group, the substitutions on 'A' does not represent aryl, aromatic, heterocyclic or cycloalkyl group; and
ii) 'A' represents substituted aryl group, the substituent on 'A' represents alkylsulfonyloxy, aryloxy, aralkoxy, cycloalkyl, heteroaryl or heterocyclic group.
- 20 2. A compound as claimed in claim 1 wherein, when 'A' is substituted, suitable substitutions on 'A' may be selected from hydroxyl, oxo, halo, thio, nitro, amino, cyano, formyl, or substituted or unsubstituted groups selected from amidino, alkyl, haloalkyl, perhaloalkyl, alkoxy, haloalkoxy, perhaloalkoxy, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, bicycloalkyl, bicycloalkenyl, alkoxy, alkenoxy, cycloalkoxy, aryl, aryloxy, aralkyl, aralkoxy, acyl, acyloxy, acylamino,
25 monosubstituted or disubstituted amino, arylamino, aralkylamino, carboxylic acid and its derivatives such as esters and amides, carbonylamino, hydroxyalkyl, aminoalkyl, alkoxyalkyl, aryloxyalkyl, aralkoxyalkyl, alkylthio, thioalkyl, arylthio, alkylsulfonylamino, alkylsulfonyloxy, alkoxy carbonylamino, aryloxy carbonylamino, aralkyloxy carbonylamino, aminocarbonylamino,
30

- alkylaminocarbonylamino, alkoxyamino, hydroxyl amino, sulfenyl derivatives, sulfonyl derivatives.
3. A compound as claimed in claim 1 wherein suitable substitutions on 'B' may be selected from hydroxyl, oxo, halo, thio, nitro, amino, cyano, formyl, or substituted or unsubstituted groups selected from alkyl, haloalkyl, aryl groups.
3. A compound as claimed in claim 1 wherein, the substitutions on any of the substituents on 'A' & 'B' may be selected from hydroxyl, oxo, halo, thio, nitro, amino, cyano, formyl, or substituted or unsubstituted groups selected from amidino, alkyl, haloalkyl, perhaloalkyl, alkoxy, haloalkoxy, perhaloalkoxy, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, bicycloalkyl, bicycloalkenyl, alkoxy, alkenoxy, cycloalkoxy, aryl, aryloxy, aralkyl, aralkoxy, acyl, acyloxy, acylamino, monosubstituted or disubstituted amino, arylamino, aralkylamino, carboxylic acid and its derivatives such as esters and amides, carbonylamino, hydroxyalkyl, aminoalkyl, alkoxyalkyl, aryloxyalkyl, aralkoxyalkyl, alkylthio, thioalkyl, arylthio, alkylsulfonylamino, alkylsulfonyloxy, alkoxycarbonylamino, aryloxycarbonylamino, aralkyloxycarbonylamino, aminocarbonylamino, alkylaminocarbonylamino, alkoxyamino, hydroxyl amino, sulfenyl derivatives, sulfonyl derivatives.
4. The compounds of claim 1-3 selected from
- Methyl-5-[4-(2-ethyl-4-oxo-4H-quinazolin-3-yl)-butyl]-2-methyl-[1,3]dioxane-2-carboxylate;
- Methyl-5-[4-(2-ethyl-quinazolin-4-yloxy)-butyl]-2-methyl-[1,3]dioxane-2-carboxylate;
- Methyl-5-[6-(4-chloro-phenyl)-5-(4-methylsulfanyl-phenyl)-6-oxo-hexyl]-2-methyl-[1,3]dioxane-2-carboxylate;
- Methyl-5-[4-(2,3-dihydro-benzo[1,4]oxazin-4-yl)-butyl]-2-methyl-[1,3]dioxane-2-carboxylate;
- Methyl-2-methyl-5-(4-phenoxazin-10-yl-butyl)-[1,3]dioxane-2-carboxylate;
- Methyl-5-[4-(6,7-dihydro-4H-thieno[3,2-c]pyridin-5-yl)-butyl]-2-methyl-[1,3]dioxane-2-carboxylate;
- Methyl-5-(4-carbazol-9-yl-butyl)-2-methyl-[1,3]dioxane-2-carboxylate;
- Methyl-2-methyl-5-[4-(3-oxo-2,3-dihydro-benzo[1,4]thiazin-4-yl)-butyl]-[1,3]dioxane-2-carboxylate;
- Methyl-5-[4-(2,3-dihydro-benzo[1,4]thiazin-4-yl)-butyl]-2-methyl-[1,3]dioxane-2-carboxylate;

- Methyl-2-methyl-5-(4-phenothiazin-10-yl-butyl)-[1,3]dioxane-2-carboxylate;
Methyl-5-(4-indol-1-yl-butyl)-2-methyl-[1,3]dioxane-2-carboxylate;
Methyl-2-methyl-5-(5-phenyl-5-pyridin-4-yl-pentyl)-[1,3]dioxane-2-carboxylate;
Methyl-5-[4-(4-benzyl-phenoxy)-butyl]-2-methyl-[1,3]dioxane-2-carboxylate;
5 Methyl-2-methyl-5-[4-(3-oxo-2,3-dihydro-benzo[1,4]oxazin-4-yl)-butyl]-[1,3]dioxane-2-carboxylate;
Methyl-5-{4-[2-(2-hydroxy-ethyl)-3-oxo-2,3-dihydro-benzo[1,4]oxazin-4-yl]-butyl}-2-methyl-[1,3]dioxane-2-carboxylate;
Methyl-2-methyl-5-[4-(4-phenoxy-phenoxy)-butyl]-[1,3]dioxane-2-carboxylate;
10 Methyl-5-(3-benzo[1,3]dioxol-5-yl-propyl)-2-methyl-[1,3]dioxane-2-carboxylate;
Methyl-5-[4-(4-methanesulfonyloxy-phenyl)-butyl]-2-methyl-[1,3]dioxane-2-carboxylate;
Methyl-5-[4-(4-benzyloxy-phenyl)-butyl]-2-methyl-[1,3]dioxane-2-carboxylate;
Methyl-2-methyl-5-(3-phenylsulfanyl-propyl)-[1,3]dioxane-2-carboxylate;
15 Ethyl-5-[3-(4-bromo-phenoxy)-propyl]-2-methyl-[1,3]dioxane-2-carboxylate;
Methyl-2-methyl-5-[3-(4-phenoxy-phenoxy)-propyl]-[1,3]dioxane-2-carboxylate;
Methyl-5-[3-(4-isopropyl-phenoxy)-propyl]-2-methyl-[1,3]dioxane-2-carboxylate;
Methyl-2-methyl-5-(3-p-tolyloxy-propyl)-[1,3]dioxane-2-carboxylate;
Methyl-5-[3-(4-bromo-phenylsulfanyl)-propyl]-2-methyl-[1,3]dioxane-2-carboxylate;
20 Methyl-2-methyl-5-(3-phenoxy-propyl)-[1,3]dioxane-2-carboxylate;
Methyl-5-[3-(4-fluoro-phenoxy)-propyl]-2-methyl-[1,3]dioxane-2-carboxylate;
Methyl-2-methyl-5-[3-(naphthalen-2-yloxy)-propyl]-[1,3]dioxane-2-carboxylate;
Methyl-5-[3-(4-benzyloxy-phenoxy)-propyl]-2-methyl-[1,3]dioxane-2-carboxylate;
Methyl-5-[3-(4-methoxy-phenoxy)-propyl]-2-methyl-[1,3]dioxane-2-carboxylate;
25 Methyl-5-[3-(4-benzyl-phenoxy)-propyl]-2-methyl-[1,3]dioxane-2-carboxylate;
5-[4-(2-Ethyl-4-oxo-4H-quinazolin-3-yl)-butyl]-2-methyl-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
5-[4-(2-Ethyl-quinazolin-4-yloxy)-butyl]-2-methyl-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
30 5-[6-(4-Chloro-phenyl)-5-(4-methylsulfanyl-phenyl)-6-oxo-hexyl]-2-methyl-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
5-[4-(2,3-Dihydro-benzo[1,4]oxazin-4-yl)-butyl]-2-methyl-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;

- 2-Methyl-5-(4-phenoxazin-10-yl-butyl)-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 5-(4-Carbazol-9-yl-butyl)-2-methyl-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 5 2-Methyl-5-[4-(3-oxo-2,3-dihydro-benzo[1,4]thiazin-4-yl)-butyl]-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 5-[4-(2,3-Dihydro-benzo[1,4]thiazin-4-yl)-butyl]-2-methyl-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 2-Methyl-5-(4-phenothiazin-10-yl-butyl)-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 10 5-(4-Indol-1-yl-butyl)-2-methyl-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 2-Methyl-5-(5-phenyl-5-pyridin-4-yl-pentyl)-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 15 5-[4-(4-Benzyl-phenoxy)-butyl]-2-methyl-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 2-Methyl-5-[4-(3-oxo-2,3-dihydro-benzo[1,4]oxazin-4-yl)-butyl]-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 5-{4-[2-(2-Hydroxy-ethyl)-3-oxo-2,3-dihydro-benzo[1,4]oxazin-4-yl]-butyl}-2-methyl-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 20 2-Methyl-5-[4-(4-phenoxy-phenoxy)-butyl]-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 5-(3-Benzo[1,3]dioxol-5-yl-propyl)-2-methyl-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 25 5-[4-(4-Methanesulfonyloxy-phenyl)-butyl]-2-methyl-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 5-[4-(4-Benzyloxy-phenyl)-butyl]-2-methyl-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 2-Methyl-5-(3-phenylsulfanyl-propyl)-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 30 5-[3-(4-Bromo-phenoxy)-propyl]-2-methyl-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 2-Methyl-5-[3-(4-phenoxy-phenoxy)-propyl]-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;

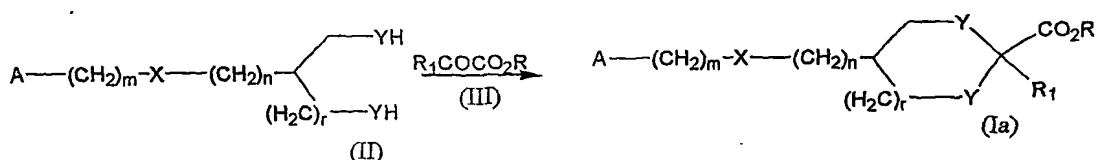
- 5-[3-(4-Isopropyl-phenoxy)-propyl]-2-methyl-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 2-Methyl-5-(3-p-tolyloxy-propyl)-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 5 5-[3-(4-Bromo-phenylsulfanyl)-propyl]-2-methyl-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 2-Methyl-5-(3-phenoxy-propyl)-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 5-[3-(4-Fluoro-phenoxy)-propyl]-2-methyl-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 10 2-Methyl-5-[3-(naphthalen-2-yloxy)-propyl]-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 5-[3-(4-Benzoyloxy-phenoxy)-propyl]-2-methyl-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 15 5-[3-(4-Methoxy-phenoxy)-propyl]-2-methyl-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
- 5-[3-(4-Benzyl-phenoxy)-propyl]-2-methyl-[1,3]dioxane-2-carboxylic acid and its pharmaceutically acceptable salts;
6. A pharmaceutical composition which comprises compounds of formula (I), as claimed in any preceding claims and a pharmaceutically acceptable carrier, diluent, excipients or solvate.
- 20 7. A method of preventing or treating diseases caused by hyperlipidaemia, hypercholesteremia, hyperglycemia, obesity, impaired glucose tolerance, leptin resistance, insulin resistance, diabetic complications, comprising administering an effective, non-toxic amount of compound of formula (I) or suitable pharmaceutical composition as defined in any preceding claims to a patient in need thereof.
- 25 8. The method according to any preceding claims, wherein the disease is type 2 diabetes, impaired glucose tolerance, dyslipidaemia, hypertension, obesity, atherosclerosis, hyperlipidaemia, coronary artery disease, cardiovascular disorders and other diseases wherein insulin resistance is the underlying pathophysiological mechanism.
- 30 9. A medicine for treating/reducing any of the disease conditions described in any preceding claims which comprises administering a compound of formula (I), as

defined in claims 1-5 and a pharmaceutically acceptable carrier, diluent, excipients or solvate to a patient in need thereof

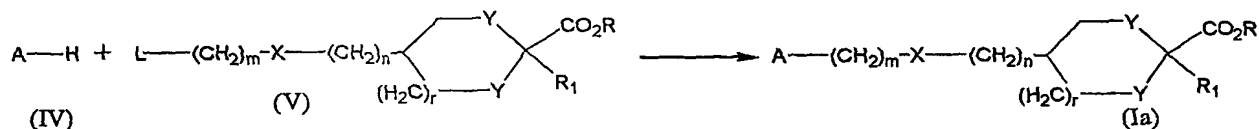
10. Use of compounds of formula (I), their pharmaceutical compositions and medicines containing them as defined in any previous claims as a medicament suitable for the treatment of diseases mentioned in any of the aforesaid claims.

11. A process for preparing compound of formula (I) comprising the steps of

i) reacting a compound of formula (II) with a compound of formula (III), where 'R' represents suitable alkyl group and all other symbols are as defined in claim 1, to obtain compounds of formula (Ia)



ii) alternatively, reacting a compound of formula (IV) with a compound of formula (V), where 'L' represents suitable leaving group and 'R' represents suitable alkyl group and all other symbols are as defined in claim 1, to obtain compound of formula (Ia), where all symbols are as defined in claim 1



iii) converting the compound of formula (Ia) to compound of formula (I), where all symbols are as defined in claim 1

